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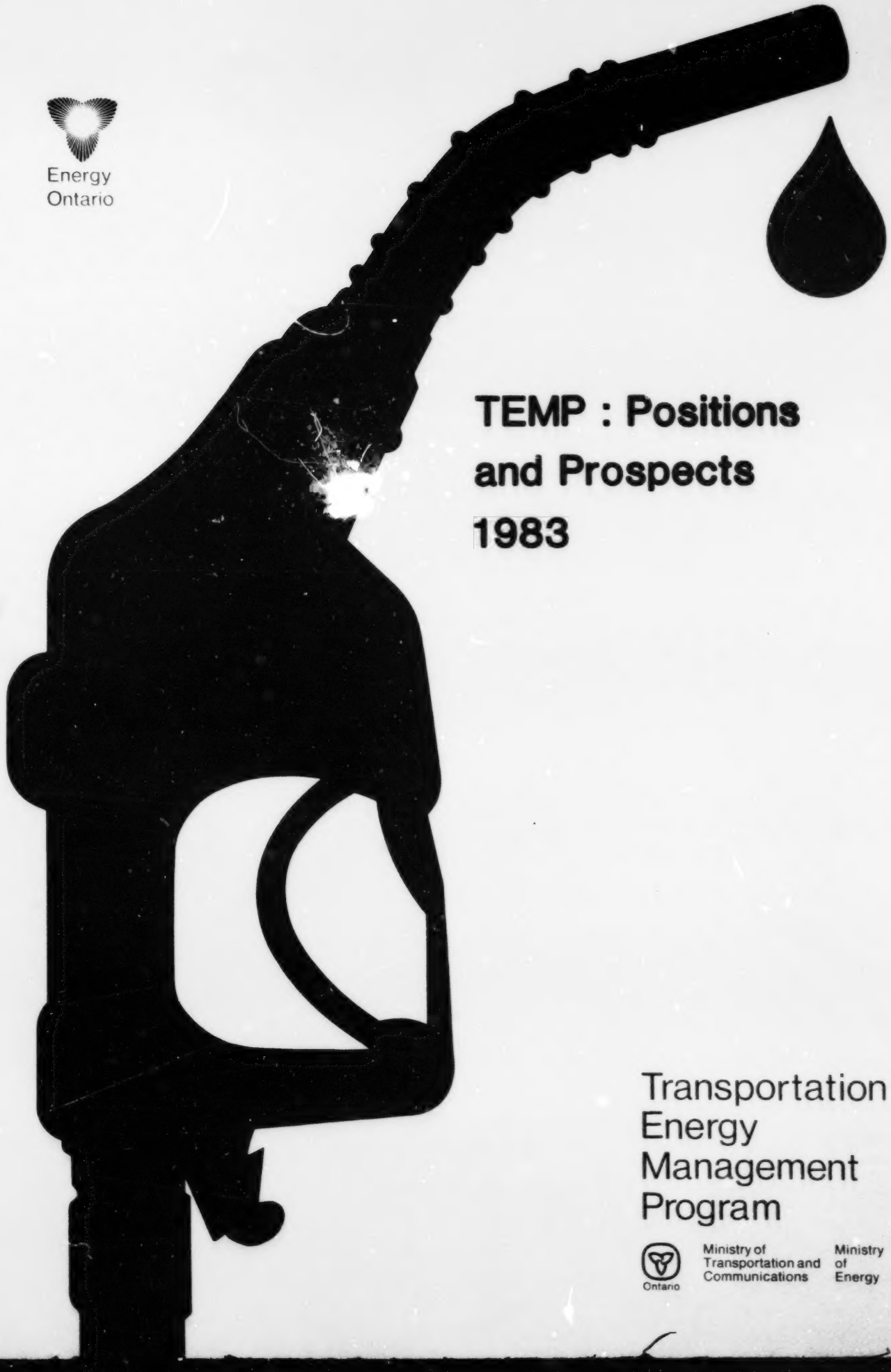

TEMP : Positions and Prospects 1983

Transportation
Energy
Management
Program

Ontario
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1/ INTRODUCTION

In the speech from the throne on March 29, 1977, the government declared its commitment "to a war on waste at every level of energy utilization".

Although the day-to-day energy situation may have changed since that date, the government's commitment to the elimination of waste in energy utilization and the reduction of the province's oil dependence is continuing. It is also realized that it is not only through government activities, but with the participation of the people of Ontario that any long term goals for energy efficiency and reduction of oil dependence can be realized. In addition to the benefits of efficiency, the significance of energy conservation and oil substitution to Ontario is emphasized by the fact that transportation fuel costs represent an estimated annual out-of-province drain of approximately $4 billion.

Since 1977, MTC has played a major role in translating the commitment to energy efficiency and oil substitution into actions. In fact, one of the MTC mandates as stated in the Ministry Strategic Planning Guidelines is:

> "To be the focal point of identification of transportation needs, and to satisfy them in accordance with Ontario government objectives."

As transportation energy is a transportation need, it is the responsibility of this Ministry to respond to that need. The Transportation Energy Management Program (TEMP) is the instrument by which MTC, in cooperation with the Ministry of Energy, addresses that responsibility.

TEMP is a joint program combining the expertise of both the Ministry of Transportation and Communications and the Ministry of Energy. The Ministry of Energy provides policy direction and direct services funding, while project management and technical input is provided by MTC. With respect to this role, TEMP has been identified in the Ministry Strategic Planning Guidelines specifically as an area in which:

> "...MTC particular program and policy responsibilities and expertise, and, therefore, must undertake a lead role with other ministries in addressing specific government initiatives."

The 1983 TEMP Position and Prospects has been produced to inform senior management at both the Ministry of Transportation and Communications and the Ministry of Energy of TEMP's current status and outlooks. Included in the document are the strengths and weaknesses of the various TEMP sub-programs. Also included are the opportunities for and threats to the sub-programs as well as issues and corresponding strategies. The TEMP sub-programs are:

- Trucksave
- DriveSave
- Municipal
- Share-A-Ride
- Government Fleetsave
- Alternative Transportation Fuel (ATF)
- Alternative Transportation Fuel Marketing
- Teleconferencing.

The TEMP sub-programs were created to assist in achieving the following government transportation energy targets:

- a 33% decrease in fuel consumption/passenger-km by 1995;
- a 25% decrease in fuel consumption/tonne-km by 1995;
- a 2% substitution by 1985 and 10% by 1995 of petroleum products by alternative fuels in road transportation.

2/ TEMP GENERAL OVERVIEW

2.1/ Assessment: Present Position

- The current oil supply, precarious international situations, and the federal international oil sharing obligations continue to make it imperative to lessen our dependence on oil.

- The continuous outflow of some seven billion dollars per year from the province for the purchase of petroleum products slows the rate of economic recovery.

- TEMP measures have been accepted, endorsed, and are being used by the private sector.

- Soft world oil prices have led to a false sense of energy security and the reduction of commitment on the part of governments and the general public.

- The industrial sector still recognizes the importance of energy conservation and the advantages of adopting TEMP developed and promoted measures.

- TEMP expertise and programs are highly regarded by the federal, provincial and municipal governments.

- Programs and initiatives originated and promoted by TEMP have been adopted by the private sector and municipalities leading to new industrial opportunities.

- There is a lack of awareness of TEMP initiatives and achievements by MTC and other Ministries.

- The difficulty in measuring TEMP results may slow political support and curtail long-term funding and commitment by the government.

- Where measurements of results can be determined, i.e., the number of propane vehicles, the number of vanpools etc., these results have met or surpassed predetermined TEMP goals.

- MTC's role and responsibility in province-wide Transportation Energy Management is not generally understood by MTC and other ministries.

2.2/ Prospects

Ontario's energy security can be achieved by planning for oil shortages now, during the current energy supply stability.

Through conservation and by displacing imported oil with alternative fuels, Ontario can help reduce Canada's capital outflow and our dependence on foreign oil.

Ontario can strengthen its' manufacturing sector and create jobs through the development of technologies associated with energy management.

Ontario can achieve a prominent position in energy conservation and ATF technology development.

Without a longterm government policy on incentives, the private sector is reluctant to invest in the use and development of energy conservation measures and alternative transportation fuels.

2.3/ TEMP Issues and Strategies

ISSUES	STRATEGIES
• Lack of awareness of the true nature of the current oil situation and the long-term outlook for all energy supplies for Ontario.	• Provide periodic information about the energy future of Ontario and Canada: - to the general public and news media, through the Ministry of Energy and MTC - to the Cabinet and the Members of the Legislative Assembly through the Ministry of Energy and MTC. - to MTC management through presentations at Outlooks Sessions and periodic updates.
• The continuatior of existing funding and range of activities for client/target groups which is necessary to ensure significant reduction in the provincial fuel consumption levels during a time of regular government cut-backs.	• Outline possible funding and organizational structures for a presentation of options to senior management.

ISSUES	STRATEGIES
• Under-utilization of TEMP measures by the Ontario government	• Option 1 - Leave government-wide energy management to the discretion of each individual ministry. • Option 2 - Promotion of increased use of TEMP programs through Fleetsave. RECOMMENDATION -- Option 2
• Broadening the base of participation in TEMP activities	• Publicize the success of efforts made by commercial fleets in saving fuel and money to motivate greater participation in implementation of proven energy conservation techniques. • Develop and implement an evaluation project to show the effectiveness of TEMP.

ISSUES	STRATEGIES
• Development of appropriate regulations dealing with the safety and marketing of alternative fuels.	• Work with the Ministry of Consumer and Corporate Relations, Ministry of Energy and the appropriate fuels industries to develop regulations for: - propane - natural gas - methanol fuels.
• Development of manufacturing opportunities in energy management and alternative fuels technology.	• In cooperation with other Ministries, i.e., Ministry of Industry Trade and Development and Ministry of Energy. • Assist in creation of a fuels and engine research center in Ontario.

3/ TRUCKSAVE

3.1/ Assessment

OBJECTIVE

To improve the fuel efficiency of the Ontario trucking fleet, thereby, reducing fuel consumption per tonne kilometre by 20% by 1995. This will assist in reducing the drain on the province's economy caused by the importing of petroleum products.

POSITION

The objective remains valid and achievable, as considerable success has been obtained to date. The program requires (at the very least) the present level of effort and funding to realistically achieve the long-term objective.

STRENGTHS

- The Ontario Trucking Association, participating trucking companies and suppliers to the industry involved with Trucksave have high regard for the output and results of this program.

- The many fuel economy measures advocated by Trucksave are regarded as being carefully researched and are being adopted by numerous companies and drivers.

WEAKNESSES

- There are a lot of independant and smaller trucking operations that are not aware or have not yet accepted the extent to which economy measures reduce operating costs and improve efficiency of operation.

- There is an apparent lack of meaningful long-term commitment to the program by senior MTC management.

3.2/ Prospects

OPPORTUNITIES

- There is considerable opportunity for the government to maintain the high level of credibility and cooperation it now enjoys in its relationship with the trucking industry, and to obtain that industry's prolonged assistance in reducing the considerable drain on the province's economy due to the importing of petroleum products.

THREATS

- The greatest threat to the program is that in its role to save fuel and reduce costs in this time of economic restraint, senior management often fails to realize the significant positive contributions made to the present and long term economic prosperity of the province by Trucksave.

3.3/ TruckSave Program

ACTIVITIES

- Energy Conservation

SUB-ACTIVITIES

- Trucksave Advisory Committee
- Economy Challenge
- Investigation and research into new fuel-saving procedures

CLIENTS

- The Trucking Industry of Ontario
  - -Senior Management
  - -Fleet Managers
  - -Drivers and Mechanics
  - -Suppliers to the Industry

OUTPUT

- Specification manuals
- Educational films, audio/visual, booklets and pamphlets
- Seminars and Demonstrations
- Marketing material

3.4/ Trucksave Issues and Strategies

ISSUES	STRATEGIES
• Maintaining up-to-date information for the writing of specification manuals and pamphlets.	• Maintain the Trucksave Advisory Committee as an ongoing critic of the program, and to advise on future areas of investigation.
• Marketing the results of the companies using Trucksave techniqus to companies and drivers not yet involved. Continued support from senior management for the program.	• Research the latest technological developments in order to keep the specification manuals accurate and meaningful.
	• Hold a Trucksave Economy Challenge in 1984, and prepare a computer program to analyze the results.
	• Develop marketing strategies based on the recommendations of the marketing assessment.
	• Develop a routine project.
	• Attend seminars, trade shows and visit the industry.
	• Keep senior MTC management informed on the progress of the program.

4/ DRIVESAVE

4.1/ Assessment

OBJECTIVE: To improve the fuel economy of Ontario's drivers. An improvement in fuel economy would result not only in cost savings of companies' and individual's operating expenses, but of equal importance would help reduce the drain on the Ontario economy currently necessary to import petroleum products.

POSITION

The basic objective remains valid and appropriate. Continuing achievement is possible and desireable. Significant progress has been made to date particularly with commercial auto and light vehicle fleets.

The largest potential conservation savings group for transportation energy, the general licensed driver in Ontario, has received very limited attention and consequently little information about fuel conservation.

STRENGTHS

- Positive results have been achieved in working with large and medium sized commercial automobile and light truck fleets.

- This means the experience and information developed in this collaborative effort with the fleet industry as the results of its effectiveness can be then shared with the other two target groups of DriveSave - beginner drivers and the general licensed driver.

- Information documents, pamphlets, calculators, etc. and the film 'The DriveSave Zone' have generally been well received and respected by a wide range of users - business, driver education, community, and government.

- The DriveSave Advisory Committee, a mixture of experts in light truck and automobile commercial fleets as well as government representatives, continues to add a dynamic flavour to the DriveSave program.

- The DriveSave program is recognized by industry and other government agencies as being an innovator and marketing leader for fuel conservation measures.

WEAKNESSES

- Large fleets have been the main target group for DriveSave's program and have made significant improvements in fuel economy. However, many smaller existing fleets have not yet been reached and influenced in their transportation energy consumption habits.

- Experience and resources, both financial and human, have not to date allowed a major multi-faceted approach to be implemented to address the very large, general licensed driver target group.

- Progress with driver education community has been limited in part due to the very disorganized character of private driving school industry. In addition, less than half of all beginner drivers receive professional instruction (high school or private) annually; hence, it is very difficult to reach a larger portion of the beginner driver target group.

- The measurements of results of the successful impact on general licensed drivers is very difficult and a means of measuring results has not been developed.

4.2/ Prospects

Energy conservation, generally including transportation energy conservation, continues to offer a method of reducing the outflow of capital from Ontario to buy petroleum-based fuel, thereby improving the provincial economic position.

OPPORTUNITIES

- Maintain and build on the high credibility, expertise, information and successes that have occurred with a number of large- and medium-sized commercial fleets in Ontario.

- Utilize as effectively and directly as possible the existing elements within the driver education community (high school programs and private driving schools) to educate that portion of beginner drivers who participate in formal driver training lessons.

- Slowness in economic recovery and general public interest in saving money will continue to provide a sound reason for improving fuel economy -- i.e., saving money.

THREATS

- Lack of sufficient resources provided in the next several years to maintain current successful activities and improve public (general licensed driver) promotion program.

- Insufficient understanding/level of interest in DriveSave by MTC senior management could result in a shortage of human resources and backing which could effectively influence budget allocation from Ministry of Energy.

4.3/ DriveSave Program

ACTIVITIES

- Energy Conservation

SUB ACTIVITIES

- Fleet Management
- Vehicle Selection & Maintenance
- Driver Training

CLIENTS

- Commercial Vehicle Fleets
- Beginner Drivers
- General Licensed Driver

OUTPUT

- Fleet Manager Seminars
- Community Outreach Sessions
- Pamphlets, Calculators
- DriveSave Zone Film
- DriveSave (Propane) Display

4.4.1/ Issues and Strategies

ISSUES	STRATEGIES
• The continuation of the existing range of activities and client/ target group involvement is necessary to ensure significant reduction in the provincial fuel consumption levels during a time of regular government cut-backs.	• Maintain DriveSave Fleet Advisory at current level of activity with some new members filling vacant positions.
• The development of an effective means of addressing the massive general licensed driver target group in order to bring about fuel economy understanding and improvement.	• In conjunction with Propane Gas Association of Canada, sponsor a propane seminar for fleet industry.
• Utilizing the success of efforts made by commercial fleets in saving fuel and money to motivate and convince the general licensed driver that savings are possible and worthwhile.	• In conjunction with Trucksave, obtain a total vehicle population printout for Ontario, by vehicle type for use in marketing and analysis of fleet target group.
• Monitoring and responding to new information from research and industry about fuel economy developments.	• Develop and implement an evaluation project to examine the effectiveness of one or several DriveSave information tools.
	• Utilize successful activities of various commercial fleets to demonstrate to general licensed drivers the cost-savings possible through better fuel economy.
	• Improve awareness of MTC senior management of DriveSave successes, range of program activities, including government industry relationships with fleets and the driver education community.

5/ MUNICIPAL

5.1/ Assessment

OBJECTIVE: To guide and assist Ontario municipalities in developing and implementing conservation measures, thereby reducing consumption of petroleum fuels within municipalities and assist in reducing the drain on the provincial economy caused by importing oil for transportation.

POSITION

While the aforementioned objective is still valid and considerable success has been achieved with programs advocated by TEMP, many municipalities do not place high priority on energy conservation programs. In order to achieve a higher success rate, greater effort will be required in the marketing of the proven measures.

STRENGTH

- The Municipal Transportation Energy Advisory Committee (MTEAC) has considerable expertise and is held in high esteem by municipal leaders.
- Municipal leaders are receptive to programs that save municipality money.
- The informational material developed by this program has been well received by all the municipalities.

WEAKNESSES

- Some measures advocated by the program have long-term implications and require municipal expenditure.
- Political support is at a minimum.
- A false sense of energy security has led to apathy among many municipal leaders.

5.2/ Prospects

OPPORTUNITIES

- A considerable amount of informational material detailing energy conservation measures has been developed over the past two years. A concentrated effort will now be required in the promotion and distribution of this material in order to convince those municipalities of the need to implement energy conservation measures.

THREATS

- Lack of financial resources as well as lack of political and public support are the main barriers.

- Municipal leaders do not perceive energy conservation as a high priority project.

5.3/ Municipal Program

ACTIVITIES

- Energy Conservation

SUB ACTIVITIES

- Municipal Transportation Energy Advisory Committee
- Promotions
- Demonstrations

CLIENTS

- 850 Ontario Municipalities

OUTPUT

- Energy Transportation Studies
- Demonstration Projects
- Seminars
- Transportation Energy Manuals
- Newsletters
- Films and Pamphlets

5.4/ Issues and Strategies

ISSUES	STRATEGIES
• The ability to successfully market the techniques developed by the Municipal Transportation Energy Programs depends upon the level of funding and staff assigned to this area.	• Maintain the Municipal Transportation Energy Advisory Committee as an active group to define and guide development of programs.
• Lack of commitment to energy related measures by municipal politicians.	• Utilize existing MTC network, in particular, district and regional personnel who deal with municipalities on a daily basis.
• Many of the energy savings advocated benefit the population at large rather than just the municipalities which must pay to implement these measures.	• Develop a marketing strategy by preparing a municipal inventory indicating what activities are presently in place and rank each activity according to energy benefits.

6/ SHARE-A-RIDE

6.1/ Assessment

OBJECTIVE: To increase vehicle occupancy levels during commuting thereby assisting in achieving the provincial government's goal of decreasing fuel consumption/passenger-km by 33% by 1995 and helping to reduce the drain on the province's economy caused by the importing of petroleum products. Also, to reduce road space demand thereby reducing provincial expenditures on highway construction for periods of peak demand.

POSITION

The Share-A-Ride sub-program, involving both carpooling and vanpooling, has achieved a significant level of success. Savings of 5.0 million litres of gasoline annually can be directly attributed to program activities. If Share-A-Ride is to continue to be successful and take advantage of existing opportunities, the level of effort and the level of funding need to be increased.

STRENGTHS

- There are demonstrated savings achieved through the implementation of employer-based carpool and vanpool programs.
- The Share-A-Ride program is highly regarded by other governments and private agencies as taking a leadership role in program development and providing information about ridesharing.
- The technical assistance and materials supplied by the Share-A-Ride program has been instrumental in the implementation of successful employer-based ridesharing programs.
- A recent Gallup Poll indicated that 53% of drivers are aware of the concept of vanpooling.

WEAKNESSES

- Employers are reluctant to accept the front-end costs associated with ridesharing especially in the present economic conditions.

- Increased growth in ridesharing is dependent on meaningful and long-term commitment in the areas of funding for area-wide carpool matching services and incentives. This level of commitment by senior management is not apparent at this time.

6.2/ Prospects

OPPORTUNITIES

- The continued marketing of employer-based programs is expected to increase annual fuel savings to 14 million litres of gasoline in the next five years. The provision of a municipally based area-wide matching service and amendments to the PV Act, to allow third-party (commercially sponsored) vanpooling, would increase annual fuel savings to 35 million litres in the same period and overcome the problems associated with reluctant employers.

THREATS

- The greatest threat to significant energy and roadspace savings through ridesharing is management reluctance to make long-term commitments to the funding of ridesharing activities.

6.3/ Share-A-Ride Program

ACTIVITIES

- Energy conservation
- Reduction of roadspace requirements

SUB-ACTIVITIES

- Marketing (promotional)
- Program delivery
- Technical assistance
- Development of new techniques
- Keeping abreast of developments in the United States

CLIENTS

- Private Sector Employers
- Public Sector
- General Public

OUTPUT

- Handbooks, brochures, newsletters
- Carpool matching service
- Technical assistance to employers and individuals
- Area-wide carpool matching software package

6.4/ Issues and Strategies

ISSUES	STRATEGIES
• To overcome the reluctance of employers to embark on ride-sharing activities.	• Continue present level of promotional assistance activities directed at employers.
• To change the focus from an employer-based approach to an area-wide service approach.	• Continue to support individuals in vanpool implementation.
• To keep abreast of developments in ridesharing techniques and technology.	• Conduct a study of existing area-wide offices in the United States to outline possible funding and organizational structures for a presentation of options to senior management.
• To ensure support from senior management and politicians.	• Complete development of an area-wide matching software package in advance of undertaking an area-wide service demonstration.
	• Implement an area-wide carpool matching service in the Metro Toronto commutershed.
	• Subsequently, upon successful implementation of Metro Toronto area-wide services, implement similar services in Hamilton and Ottawa.
	• Attempt to influence a change in the PV Act in order to permit third-party (commercial) vanpooling in the province.

7/ GOVERNMENT FLEETSAVE

7.1/ Assessment

OBJECTIVE: To establish a program that will achieve a reduction in transportation energy consumption in all government ministries, which in turn will reduce the outflow of provincial money used to purchase and import petroleum products; and to exhibit leadership in transportation energy conservation.

POSITION

Some ministries are currently practicing transportation energy conservation measures, while others are not. Additional and more widespread activity is possible and desirable.

STRENGTH

Similar programs for private fleets called "Trucksave" and "DriveSave" are successful and much material from these programs is applicable to Government Fleetsave.

WEAKNESS

There was a lack of support by senior management throughout the ministries for the previous transportation energy conservation initiative, and unless this support is forthcoming for Government FleetSave, it will not succeed.

7.2/ Prospects

Transportation energy conservation will contribute to a reduction of the outflow of capital from Ontario for the purchase of petroleum products, thereby improving the provincial economic position. A government-wide reduction of 10% of transportation fuel use is highly possible in the short-term.

THREATS

If this program is not staffed and co-ordinated properly, the results and efforts in the initial stages will go unnoticed and government will be open to criticism in an area where it should be exhibiting leadership.

7.3/ Government Fleetsave Program

ACTIVITIES

- Transportation Energy Conservation

SUB-ACTIVITIES

- Fleet Management
- Vehicle Selection and Maintenance
- Driver Training

CLIENTS

- All Government Ministries

OUTPUT

- Educational material and use of Trucksave/DriveSave materials
- Continued reporting on achievments

7.4/ Issues and Strategies

ISSUES	STRATEGIES
• Maintaining co-operation between ministries on the standardization of energy conservation techniques and controls.	• Market the reason for government participation in the program.
• The need to inform the public of government energy-saving programs and their results.	• Investigate what Ministries have achieved already and publish the results.
	• Establish an interministerial working group for the dissemination of transportation energy conservation materials and for the exchange of "success stories" between ministries.
	• Keep the ministries and public informed of the progress of the program by various media means.
	• Use the Trucksave/DriveSave approach, techniques and materials.

8/ ALTERNATIVE TRANSPORTATION FUELS OVERVIEW

8.1/ Assessment

OBJECTIVE: To replace oil-based fuels in Ontario's transportation sector with alternative fuels:
- 2% by 1985,
- 10% by 1995,

thereby reducing oil imports and decreasing Canada's outflow of capital.

STRENGTHS

- Ontario has a policy, with financial incentives, promoting the use of alternative transportation fuels.

- There exists a good potential supply of alternative fuels for Ontario.

- Ontario has both the expertise and facilities for the development of alternative transportation fuels' technology.

- Propane is already commonly used as an alternative transportation fuel in Ontario (there are about 27,000 propane vehicles in Ontario), and a number of demonstrations on the use of other alternative fuels are currently underway in the province.

- Ontario is recognized by the automobile and oil industries as a leader in alternative fuels use and development.

WEAKNESSES

- There is a perceived oil glut, and an accompaning complacency about the need to develop alternative fuels utilization for Ontario.

- There is a limited public awareness of alternative fuels utilization and opportunities in Ontario.

WEAKNESSES

- There are both real and perceived safety issues related to the use of alternative fuels in Ontario.

- Ontario's facilities and expertise are not optimally used for alternative fuels technology development.

- Most alternative fuels technology used in Ontario is imported.

- Uncertainty about the future of Ontario's policy of incentives for alternative fuel use.

8.2.1/ Prospects

OPPORTUNITIES

- By replacing imported oil with alternative fuels, Ontario can help to reduce Canada's capital outflow and reduce our dependancy on foreign oil, thereby enhancing our trading position abroad.

- Ontario can strengthen its manufacturing sector and create jobs through the development of alternative transportation fuels technology.

- Ontario can become a leader in the development, manufacture and export of selected alternative fuels technologies.

- Use of alternative fuels can prevent possible future fuels shortfalls in Ontario.

THREATS

- Complacency about the security of future oil supplies will prevent development of alternative fuels utilization and could allow future fuel shortfalls to occur.

- Lack of information on and understanding of alternative fuels, as well as perceived safety problems with these fuels, can hinder and delay the introduction of the use of alternative fuels.

- Ontario and Canada could become dependent on imported technology for the utilization of alternative fuels.

- Uncertain about Ontario's alternative fuels incentives policy, the private sector is reluctant to invest in the use and development of alternative transportation fuels.

8.3/ Alternative Transportation Fuels Program

ACTIVITIES

- Fuel Substitution

SUB-ACTIVITY

- Assembly and dissemination of information
- Promotion of the concept of fuel alternatives
- Participation in the development of regulations
- Fuel and engine research
- Fuel, engine and vehicle testing
- Fleet demonstration
- Market assessment
- Technology development
- Coordination

CLIENTS

- General public
- Fleet managers and operators
- Private industry
  - fuel suppliers
  - vehicle manufacturers
  - equipment manufacturing
  - conversion industry
- Universities and Colleges
- Research institutions
- Governments
  - other provincial ministries
  - municipalities

OUTPUT

- Information: booklets, pamphlets, reports, and contact with public.
- Demonstrations
- Research
- Industrial Opportunities

8.4/ Issues and Strategies

ISSUES	STRATEGIES
• Awareness of the true nature of the current oil situation and the long-term outlook for all energy supplies for Ontario.	• Provide periodic information about the energy future of Ontario and Canada: - to the general public and news media, through the Ministry of Energy; - to the Cabinet and the Members of the Legislative Assembly through the Ministry of Energy and MTC; - to the MTC management through presentations at Outlooks Sessions and periodic updates to SPC and the planning committees by TEMP staff.
• Public awareness of the nature and availability of alternative transportation fuels.	• Produce and distribute booklets and pamphlets describing the various alternative fuels. • Provide information through press releases, booklets, newsletters, etc. to the news media.
• Development of appropriate regulations dealing with the safety and marketing of alternative fuels.	• Work with the Ministry of Consumer and Corporate Relations, Ministry of Energy and the appropriate fuels industries to develop regulations for: - propane - natural gas - methanol fuels.

ISSUES	STRATEGIES
• Development of a long-term policy of economic incentive for alternative transportation fuels in Ontario.	• Option 1. Together with the Ministry of Energy, recommend to the Cabinet the adoption of a 10-year policy of staged economic incentives for alternative transportation fuels. Option 2. During the preparation of each budget, recommend to the Ministry of Revenue to continue the present incentives on alternative fuels. Recommendation. Follow Option 1.
• Insufficient knowledge of the proper installation and use of conversion equipment, preventing optimum efficiency (technical and economic) in the use of alternative fuels.	• Conduct research and testing on alternative fuels installations and equipment and make results available to manufacturers and conversion firms. • Cooperate with manufacturers and the conversion industry in improving existing conversion equipment and techniques.
• Optimum utilization and development of research facilities for alternative transportation fuels technology development in Ontario.	• Option 1. Create, with provincial and federal government funding, an alternative fuels and engines research centre in Ontario. Option 2. Provide grants to Ontario Universities to carry out alternative fuels research and technology development.

ISSUES	STRATEGIES
	• Option 3. In cooperation with private industry, sponsor jointly funded, alternative fuels technology development at existing research facilities: Ontario Research Foundation, Urban Transportation Development Corporation, and Ontario Universities. Recommendation: Option 1 with elements of Options 1 and 2 carried out through the established Research Centre.
• Development of alternative fuels equipment manufacturing capabilities in Ontario.	• Provide information to equipment manufacturers on existing and emerging technology improvements and their associated manufacturing opportunities. • In cooperation with the Ministry of Industry and Trade, provide technology development grants to engine and equipment manufacturers.

9/ ALTERNATIVE TRANSPORTATION FUELS: SPECIFIC

9.1/ Assessment: Propane

OBJECTIVE: To support and promote the use of propane in Ontario's transportation sector as a replacement for oil-based fuels.

POSITIONS

STRENGTHS

- There is a good supply of propane for transportation use.
- Over 27,000 vehicles have already been converted to propane.
- A number of major commercial fleets in Ontario endorse and use propane.
- There are over 1100 public and private propane refuelling stations in Ontario.
- MTC is conducting research on propane equipment and is working with fleets and equipment manufacturers to promote the use of propane in Ontario's transportation sector.
- MTC, in cooperation with the Ministries of Consumer and Corporate Relations, and Energy, is embarking on a propane vehicle inspection program to help maintain the standards for propane vehicles and equipment in Ontario.
- Propane is a fuel well suited to internal combustion engines and can be used in conventional gasoline engines, resulting in increased efficiency of these engines.

WEAKNESS

- There is insufficient knowledge of the proper use and installation of conversion equipment.

- The refuelling process is both complicated and potentially hazardous.
- Measuring equipment used in propane dispensing is inaccurate due to lack of temperature compensation.
- Propane carburation equipment is unsophisticated, particularly with regard to mixture control.
- The public is confused about the regulations concerning propane equipment and conversion practices.

9.1.2/ Prospects

OPPORTUNITIES

- With the continuing increase in propane use, the Ontario alternative transportation fuel targets for 1985 and 1995 can be achieved.

- Much of the propane which is currently exported to the U.S. could be utilized for Ontario's transportation needs.

- Ontario could be a leader in propane equipment technology and create an export industry in this area.

THREATS

- Inefficient equipment and inefficiencies due to improper conversions may not permit a sufficient cost advantage for propane to induce drivers to convert their vehicles.

- Public perception of safety hazards may discourage conversion of vehicles, particularly those used by the public - taxis, buses, etc.

- Insufficient control over conversion centres and inadequate inspections of conversions may lead to inefficient and unsafe conversions.

- Lack of incentives may limit investments in propane technology development and may prevent Ontario from developing an export industry in this area.

9.2/ Natural Gas

OBJECTIVE: To promote and develop the use of natural gas in Ontario's transportation sector as a replacement for oil-based fuels.

POSITIONS

STRENGTHS

- Natural gas is in good supply in Canada.
- Natural gas as a transportation fuel is promoted by several equipment manufacturers and suppliers, and by gas utilities in Ontario.
- There are several natural gas-powered vehicle fleet demonstrations in Ontario.
- MTC is participating with gas utilities and equipment manufacturers in promoting and developing the use of natural gas in transportation.

WEAKNESSES

- There is no overall plan (targets, strengths, defined roles) for natural gas utilization in Ontario's transportation.
- There is very little infrastructure, particularly refuelling stations, for dispensing natural gas in Ontario. Such infrastructure, particularly refuelling stations, is expensive.
- The market for natural gas-powered vehicles is limited because of the short driving range of these vehicles caused by the difficulty of storing sufficient quantities of natural gas on board vehicles.
- There are many unresolved regulatory issues dealing with the safety and marketing of natural gas as a transportation fuel.

9.2.1/ Prospects

OPPORTUNITIES

- Natural gas can displace gasoline in some well defined transportation markets, such as urban delivery vehicles and commuter cars.

- The installation of natural gas delivery and dispensing systems can create new industrial opportunities and jobs for Ontario.

- Ontario can create an export industry in selected areas of natural gas utilization and dispensing technology (eg. compressors).

THREATS

- Without a natural gas utilization plan and strategy, the natural gas markets will not be realized.

- The higher cost of gas compressors and other equipment will prevent the development of a natural gas delivery and refuelling infrastructure.

- Lack of regulations will delay the introduction of natural gas as a transportation fuel in Ontario.

- The low range of natural gas vehicles could severely restrict the market for such vehicles.

9.3/ Methanol

OBJECTIVE: To develop the use of methanol in Ontario's transportation sector as a replacement for oil-based fuels.

POSITIONS

STRENGTHS

- The Canadian methanol industry has considerable excess production capacity and is interested in developing new markets for methanol.

- There is world-wide interest in methanol as a transportation fuel; it is blended with gasoline in many parts of U.S.A., and automotive engines have been developed that operate with neat or near-neat methanol.

- MTC, in cooperation with representatives of the oil, methanol and automobile industries, is conducting tests and demonstrations with methanol fuels, both blended and near-neat, with good results.

- The Ontario Research Foundation has an engine and fuel research centre with qualified staff engaged in pioneering research and development of methanol utilization technology.

- Methanol fuels utilization, for both blended and near-neat fuels, can be developed to the point where the user cannot distinguish them from petroleum fuels.

WEAKNESSES

- There is no overall plan (targets, strategies, defined roles) for the use of methanol as a transportation fuel in Ontario.

- The compositions of methanol fuels, blended and near-neat, suitable for Canadian conditions have not been determined.

- There are several unresolved economic questions related to the production and use of methanol fuels.

- Some of the methanol utilization in the U.S.A. has been carried out on an ad hoc basis, with little regard for overall fuel suitability or quality, resulting in opposition to these fuels by the major automobile manufacturers.

9.3.1/ PROSPECTS

OPPORTUNITIES

- Methanol has the potential to become the main alternative transportation fuel throughout North America and elsewhere in the world.

- Ontario, with its expertise and research facilities, can become a world leader in the development and manufacture of methanol utilization technology.

- Ontario can develop methanol fuel formulations for both blended and near-neat fuels, that will be accepted and supported for use by the auto manufacturers.

- Methanol fuel use can contribute significantly to the achievement of Ontario's 1995 alternative fuels target.

THREATS

- Due to indiscriminate blending practices in the U.S.A., the automobile manufacturers could continue to oppose the use of methanol fuels in their vehicles.

- The lack of an overall plan for the introduction of methanol into Ontario's transportation may delay the use of methanol fuels in Ontario.

- Lack of information about methanol, leading to undue concerns about its safety, could hinder the introduction of methanol use for transportation in Ontario.

- Lack of incentives may limit investments into methanol technology development and may prevent Ontario from developing into a leader and exporter in this area.

10/ ALTERNATIVE TRANSPORTATION FUELS MARKETING: DRIVE PROPANE

10.1/ Assessment

OBJECTIVE: To enable the conversion of 40,000 vehicles from gasoline to propane contributing to a 2% shift in conventional transportation fuel usage by alternative fuels by 1985, 10% by 1995.

POSITION

The objective should be changed to reflect a reduction of government promotional effort, particularly to the public, while continuing limited attention to fleets. The objective should now include "to ensure that the propane industry develops such that high standards of quality of equipment and conversion work are achieved and maintained resulting in the efficient and safe operation of all propane-powered vehicles in Ontario".

STRENGTH

- The use of propane in transportation in Ontario has been encouraged effectively by the Drive Propane program and the number of propane powered vehicles steadily increased and now stands at approximately 27,000.

- The Ontario government is currently continuing its tax incentives of no sales tax on propane vehicles and no fuel tax on propane.

- The network of propane filling outlets for motive fuel have rapidly increased, surpassing the number of diesel outlets in Ontario, and are continuing to expand.

- The provincial government has announced an extensive safety inspection program for all propane vehicles which will provide:
  1/ greater public confidence in the safety of propane;
  2/ impetus to the conversion industry to maintain high quality of workmanship;
  3/ improved knowledge about propane use in Ontario.

- There are sufficient supplies of propane to serve substantial potential needs.

- Many large auto and light truck fleets are converting to propane-powered vehicles.

- Over 27,000 vehicles are now propane-powered in Ontario.

- Government incentives.

WEAKNESSES

- Propane Gas Association of Canada (P.G.A.C) is poorly organized, not well funded and poorly structured for public relations with industry and the public.

- Major uncertainty fostered by concern of users and potential users over the possible return of road tax on propane.

- Lack of basic information about number of vehicles, geographic distribution, i.e., the split of commercial vs individual, etc.

- Retail outlets are not always geared to rapid refuelling of propane vehicles.

10.2/ Prospects

Gasoline price increases will continue to make propane an attractive alternative in addition to the government tax incentives and operational advantages for engine maintenance.

OPPORTUNITIES

- Successful experience in numerous commercial fleets can be used to illustrate proven benefits for general public use.

- A safety inspection program will help to overcome a major concern of potential users.

- Major oil companies have indicated commitment to retailing propane to the general public by the establishment of many fuelling stations. This should greatly assist public acceptance.

- A second annual DriveSave propane seminar for fleet managers will not only convey extensive information about propane to those attending, but also will be well covered by trade and possibly some general press.

THREATS

- Any accidents involving propane with vehicle fires heighten public concern about safety - no matter what the cause of these accidents.

- The promotional efforts of Drive Propane are being significantly reduced, and there will be a major gap created without active participation of P.G.A.C.

- Some fleet users and others have experienced poor to fair performance (relative to realistic expectations) of their propane vehicles. Without correction, this will create adverse reaction to the benefits of propane.

10.3/ Drive Propane Program

ACTIVITIES

- Substitution
- Research & Technology Development

SUB-ACTIVITIES

- Promotion
- Testing & Monitoring
- Inter-ministerial Work

CLIENTS

- Commercial Fleets
- General Licensed Vehicle Owners

OUTPUT

- Information publications - brochure, guide for fleet operators, summary of fleet results, directory of propane filling stations in Ontario
- Seminar for Fleet Managers in Co-operation with DriveSave
- Display panel on propane- part of larger DriveSave display
- Demonstrations

10.4/ Issues and Strategies

ISSUES	STRATEGIES
• Careful development and implementation of a propane safety inspection program including involvement of the propane industry.	• The development of a safety inspection program for propane powered vehicles being carried jointly amongst the ministries of Consumer and Commercial Relations, Energy and Transportation and Communication should actively involve the propane industry of Ontario through the P.G.A.C. and the Ontario Petrole Assoc.
• Establish commitment for timing of the current no-tax policy on propane fuel and vehicles to enable potential propane users to plan their purchases and operating expenses.	
• Encourage and assist the P.G.A.C. Ontario Chapter to improve its organization and therefore effectiveness as an industry association dealing with the government and the public.	• Continuing efforts should be made to encourage the Treasurer to maintain the exemptions of a fuel tax on propane-powered vehicles, and further, to phase the eventual return of those taxes at a graduated rate.
• Improvement of co-ordination amongst various provincial government ministries involved with propane.	• Meet with newly elected executive of the Ontario Chapter of the P.G.A.C. to establish plans for improving the organization and effectiveness of the association in promoting and enhancing the use of propane for transportation.
	• Pursue better working relations with other Ontario government ministries involved in propane issues to ensure common knowledge and therefore policy positions dealing with industry and the public.

11/ TELECONFERENCING

11.1/ Assessment

STRENGTHS

- The Ontario government has established its reputation with industry as one of the leading authorities on teleconferencing and has a well-developed marketing program.

- Demonstration projects have been established showing the benefits of teleconferencing.

- Products have been developed and Bell Canada has been encouraged to actively market teleconferencing.

- Other telecommunications initiatives have potential to significantly reduce travel, improve productivity, extend services and promote economic development.

WEAKNESSES

- While many organizations now use teleconferencing, the extent of use, particularly for certain types, remains low.

- Government role and interest in initiatives such as decentralized work, teleshopping, and teleducation is unclear.

- The best teleconferencing technology is manufactured in the U.S.A.

- There is a lack of information about telecommunications/transportation interactions including feasibility and benefits of other telecomunications initiatives with energy-saving potential.

11.2/ Prospects

OPPORTUNITIES

- There is considerable interest in teleconferencing and a demand for information.
- Ontario can maintain leadership in teleconferencing research applications and products.
- Ontario government can promote development of products and services by Ontario suppliers.
- Allied technology has potential to save energy and improve productivity.

THREATS

- Teleconferencing remains under-utilized due to inadequate information, promotion and training.
- Undefined role and limited support from government in initiatives such as decentralized work, teleducation and teleshopping.
- Foreign manufacturers' domination of the Canadian market.
- Allied technology is more difficult and costly to implement.
- A strong government policy on telecommunications and travel for employees is lacking.

11.3/ Teleconferencing Program

ACTIVITIES

- Energy Conservation
- Industrial Development
- Extension of Services
- Improved Communications

SUB-ACTIVITIES

- Publicity
- Training
- Demonstration Projects
- Equipment Testing and Development
- Research

CLIENTS

- Government (Provincial and Federal)
- Associations
- Private Industry (Users & Suppliers)

OUTPUT

- Pamphlets, AV Shows
- Demonstrations
- Presentations, Seminars and Conferences
- Assistance to Industry
- Research Reports and Articles
- Leadership and Coordination

11.4/ Issues and Strategies

ISSUES	STRATEGIES
• Inadequate information, promotion, and training contribute to under-utilization.	• 1/ Leave it to suppliers, consultants, and community to stimulate demand. 2/ Provide assistance in all areas. 3/ Provide some assistance (fill gaps) and encourage suppliers, consultants, and community colleges to develop necessary expertise.
• New and improved products required to increase use.	• 1/ Leave to market forces. 2/ Establish program to provide funding and assistance for product development to Canadian/Ontario manufacturers. 3/ Participate selectively in development and testing.
• Government policy and strategy for telecommunications/ transportation initiatives needed.	• 1/ Do nothing. 2/ Monitor developments. 3/ Research possible roles and define position and strategy.
• Utilization of teleconferencing in the Ontario government.	• 1/ Leave it to MGS. 2/ Continue promotion. 3/ Seek corporate level directive.
• Information lacking on applications, results and behavioral issues related to teleconferencing and other technologies.	• 1/ Do nothing. 2/ Monitor literature. 3/ Initiate research projects with universities and/or consultants.